REMARKS

Claims 1-17 and 23-60 are pending. Claims 1-17 and 23-60 were rejected in the Examiner's Office Action of 6/22/04. In this Amendment, Applicant has amended Claims 1, 23, 29, 32, 38, 43, and 44. No new matter is added thereby. Applicant requests reconsideration of the pending claims in view of the above amendments and the following remarks.

I. Claims 46-60 Comply with 35 U.S.C. § 112, First Paragraph

The Office Action objects to the amendments filed on 4/30/03 and 3/30/04 under 35 U.S.C. 132 because they introduce new matter into the disclosure. Also, the Office Action rejects claims 46-60 under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. Applicant respectfully disagrees.

The Office Action states that the above amendments have added new material into the disclosure of the invention. The Office Action cites the following material as being new material not supported by the original disclosure:

A. *monitoring for congestion in a trunking network as a result of unbalanced loading between the service switching points in the voice-switching telecommunications network* (recited in Claims 46, 49, 51, 53, 55, 57, and 59);

B. *monitoring for congestion in a trunking network as a result of routing utilization between the service switching points in the voice-switching telecommunications network* (recited in Claims 47, 50, 52, 54, 56, 58, and 60); and

C. *the period of time relating to the monitoring signaling between the SSPs and the STPs and selecting the signaling relating to multiple interoffice calls is greater than twenty-four hours* (recited in Claim 48).

The following excerpts from Applicant's specification support A. and B. above:

1. A *"cost effective means of analyzing traffic* [monitoring for congestion] *on the Public Switched Telephone Network (PSTN),"* and a *"method to identify individual high usage lines contributing to network blockage* [unbalanced loading and routing utilization]," (See Applicant's Specification page 10, lines 12-16).

2. *"Programs running on the servers enable network operations personnel to analyze a variety of network traffic patterns* [monitoring for congestion]," and

"[a]nother example [of an analysis of network traffic patterns or monitoring for congestion] *would involve a situation where traffic analysis may indicate the amount of traffic between two end offices and the percentage thereof routed through a tandem office,"* (See Applicant's Specification page 11, lines 10-13 and lines 16-20).

3. *"According to the invention the public switched telephone network (PSTN) is provided with a traffic monitoring* [monitoring for congestion] *and analyzing system...,"* (See Applicant's Specification page 27, lines 16-18).

4. "*From the foregoing it may be seen that the system and methodology of the invention provide a powerful and flexible tool for performing varying investigations and surveillance* [of a Public Switched Telephone Network (PSTN) - monitoring for congestion]. *Thus, as examples, it is feasible to identify ISPs, determine the source of the largest amount of traffic to the identified ISPs, the reason for overloading* [unbalanced loading and routing utilization], *the optimal solution to the overloading, analysis of the tandem* [trunking network] *loading and overloading* [unbalanced loading and routing utilization], *determination of the largest causes of that overloading* [unbalanced loading and routing utilization], *and providing a ranking of potential solutions to discovered problems."* (See Applicant's Specification page 45, lines 3-13).

5. *"Upon congestion occurring in the STP node for E04 a new call could not be sent because it constitutes a priority 1 message which is restricted because the congestion level is 2,"* (See Applicant's Specification page 20, lines 24-27). *"New calls could not be initiated until congestion had been removed or lowered to congestion status 1 or 0,"* (See Applicant's Specification page 21, lines 3-5).

6. *"The North American telephone network relies on the concept of overflow routing when call demand between end offices exceeds capacity* [routing utilization]. *This extra demand is routed through a specialized switch called a tandem. Tandem switches generally have no subscriber lines, only trunk circuits* [trunking network]," (See Applicant's Specification page 26, lines 4-9).

7. *"On the other hand it has been found that it is possible through appropriate analysis of the signaling traffic data to determine not only that a call did not complete but also the point at which it failed, i.e., the point of congestion* [monitoring for congestion]. (See Applicant's Specification page 38, line 25 – page 39, line 1).

8. *Needs that will be satisfied by this system include the following:*

a.) End office Load Balance Process Support – The system will provide an expedient, flexible, accurate, and cost effective method to identify individual high usage lines contributing to blockage[unbalanced loading].

b.) Tandem/Trunk Planning Resource – Unbundling and the increase in Certified Local Exchange Carriers are increasing the necessity for tandem switch growth. Effective growth must be dependent upon knowing customer calling patterns, communities of interest and points o[f] origin and destination [unbalanced loading and routing utilization]," (See Applicant's Specification page 40, line 16 – page 41, line 3).

The following excerpt from Applicant's specification supports C. above:

"Once each period, when the above ***data is assembled****, it is processed and compressed into flat files for each ISP containing the following data: For every hour* ***from midnight to midnight*** *the number of calls attempted that hour, the average call holding time for calls that began in that hour, and the total MOU for calls that began in that hour,"* (See Applicant's Specification page 33, line 27 – page 34, line 7). Applicant submits that the Specification discloses that the period of time relating to the *monitoring signaling* between service switching points and signal transferring points *is greater than twenty-four hours*. The time period relating to *compiling data* is every twenty-four hours.

It is respectfully submitted that Applicant has demonstrated, with the above excerpts from Applicant's Specification, that the claimed subject matter is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Therefore, withdrawal of both the 35 U.S.C. § 132 objection and the 35 U.S.C. § 112 are respectfully requested. Thus, Claims 46-60 are allowable.

II. Claims 1-17 and 23-45 are Patentable Over Brockman in View of Malloy – 35 U.S.C. § 103

The Office Action rejects pending Claims 1-17 and 23-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,592,530 to Brockman et al. ("Brockman") in view of U.S. Patent No. 5,905,985 to Malloy et al. ("Malloy"). The rejection is respectfully traversed.

Independent Claims 1, 23, 29, 38 and 44, as amended, recite the step of *generating an on line network voice traffic load report from the multidimensional data base.* Independent Claims 32 and 43 recite that a *switched telecommunications network is comprised of . . . an analytical processing means . . . providing a multidimensional database . . . to provide voice traffic load reports.* The combination of Brockman and Malloy fails to disclose this element of Claims 1-17 and 23-45.

Claim 1 of the pending application is directed to the health of a voice-switched telecommunications network by monitoring the signaling between the end office switching systems (e.g., central office, tandem switch, or end-office switch) and the signal transfer points (STPs) to generate a network **voice traffic load report**. Claim 1 focuses on generating the network **voice traffic load report** to alert users to voice congestion on the voice-switched telecommunications network. Nowhere does Brockman teach, disclose, or suggest monitoring the signaling between the end office switching systems and signal transfer points to generate a network **voice traffic load report** for the voice-switched telecommunications network.

Brockman clearly contemplates monitoring the STPs to determine the health of an SS7 network only. The SS7 network only deals with control messaging circuits (call connections, call disconnects, busy signals, etc.), not voice messaging circuits. "If an SS7 network is not functioning, or if portions of it are not operating, the phone system simply cannot deliver phone calls, *even though all of the voice circuits are operating properly*," (see col. 1, lines 55-58). "The circuitry of the SS7 network is therefore much more critical," (see col. 1, lines 61-62). Brockman also teaches that the performance of the telephone switch (STP) is monitored in the SS7 network so that "one can determine *error conditions* at the application layer of the network," (see col. 3, lines 30-31) and the information generated could be used for fraud detection and call detail records as well (see col. 3, lines 31-33).

With respect to Applicant's amendment filed March 30, 2004, reciting that "the concern of the present invention is the health of a voice network . . . by monitoring an SSP. . . in order to look at network load, routing, and possible congestion from multiple switched calls," the Examiner asserts that "[i]t is clear that a large number of interoffice switched calls to the radio

station result in unbalanced loading and congestion to the switch and routing," (see Office Action pages 18-19). Applicant respectfully disagrees. Brockman focuses on evaluating the performance of a telephone switch, an STP, not an SSP. The "error" (the number of busy conditions) identified by the STP associated with "mass call onset detection" is due to *control message routing* and ***not*** *voice message routing*. Brockman enables monitoring devices to track and correlate the SS7 data at an *application layer* in a distributed fashion across two STPs to determine error conditions at the *application layer* of the network versus monitoring between the end office switching points and signal transfer points to generate a network **voice traffic load report** for the *voice-switched telecommunications network* as claimed in Claim 1 of the pending application.

As discussed above, Independent Claims 1, 23, 29, 38 and 44 recite the step of **generating an on line network voice traffic load report from the multidimensional data base.** Independent Claims 32 and 43 recite that a **switched telecommunications network is comprised of . . . an analytical processing means . . . providing a multidimensional database . . . to provide voice traffic load reports.** Brockman teaches only the **monitoring of STPs in order to analyze the application layer of the SS7 network to evaluate the performance of STPs**. Malloy does not cure this deficiency in Brockman. For at least this reason, Applicant submits that Claims 1, 23, 29, 32, 38, 43, and 44 are patentable over the cited prior art. The pending claims that depend from Claims 1, 23, 29, 32, 38, 43, and 44 are likewise patentable over the cited prior art. Accordingly, Applicant respectfully requests withdrawal of the rejection.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 07-2347, under Order No. 00-VE06.12C1RCE from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to the above Deposit Account.

Dated: September 16, 2004

Respectfully submitted,

By_____

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